



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VALLEY REGIONAL OFFICE

4411 Early Road, P.O. Box 3000, Harrisonburg, Virginia 22801

(540) 574-7800 Fax (540) 574-7878

located at 4411 Early Road, Harrisonburg, VA

www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Amy Thatcher Owens
Regional Director

March 2, 2016

Cathy C. Taylor, Director, Electric Environmental Services
Dominion Resources Services, Inc.
5000 Dominion Boulevard
Glen Allen, Virginia 23060

Re: Concept Engineering Report Addendum – Centralized Source Water Treatment System Effluent Storage Tanks
Dominion – Bremo Power Station, VPDES Permit No. VA0004138

Dear Ms. Taylor:

The Concept Engineering Report (CER) Addendum for the above referenced project is approved. This action is in accordance with a memorandum dated March 2, 2016, a copy of which is enclosed for your information.

The Department of Environmental Quality approval does not relieve you of your responsibility to:

1. Construct the treatment system in accordance with the approved CER Addendum;
2. Operate the treatment system in a manner to consistently meet the facility's performance requirements;
3. Correct design and/or operation deficiencies; or
4. Comply with all other applicable laws and regulations.

Part I.G.5 of VPDES Permit No. VA0004138 requires that no later than 14 days following completion of construction of any project for which a CER has been approved, written notification shall be submitted to the DEQ-Valley Regional Office certifying that, based on an inspection of the project, construction was completed in accordance with the approved CER Addendum.

If you have any questions, please contact Bev Carver at beverley.carver@deq.virginia.gov or (540) 574-7805.

Sincerely,

A handwritten signature in blue ink that reads "Brandon D. Kiracofe".

Brandon D. Kiracofe
Regional Water Permits & Compliance Manager

cc: Ken Roller
Oula Shehab-Dandan
Taylor L. Engen
Correspondence File

**MEMORANDUM
DEPARTMENT OF ENVIRONMENTAL QUALITY
VALLEY REGIONAL OFFICE**

4411 Early Rd., P.O. Box 3000

Harrisonburg, VA 22801

SUBJECT: Concept Engineering Report Addendum
Centralized Source Water Treatment System Effluent Storage Tanks
Dominion – Bremono Power Station, VPDES Permit No. VA0004138

TO: Brandon D. Kiracofe, Regional Water Permits & Compliance Manager

FROM: Bev Carver

DATE: March 2, 2016

COPIES: Correspondence File

Project Name: Concept Engineering Report Addendum – Centralized Source Water Treatment System Effluent Storage Tanks

Project Owner: Virginia Electric and Power Company

Project Scope: The Concept Engineering Report Addendum dated March 1, 2016, describes the installation of four 950,000 gallon temporary aboveground storage tanks to provide hydraulic retention of treated effluent prior to discharge.

Previous Agency Action: The Concept Engineering Report for the Centralized Source Water Treatment System was approved on February 8, 2016.

Staff Comments: The staff has no objections to the facilities as proposed in Dominion's submittal dated March 1, 2016.

STAFF RECOMMENDATIONS:

The staff recommends that the Concept Engineering Report Addendum be approved.



Overnight Mail
Return Receipt Requested

March 1, 2016

Ms. Beverly Carver
Senior Water Permit Writer
Virginia Department of Environmental Quality
Valley Regional Office
4411 Early Road, Harrisonburg, VA 22801

**RE: Dominion Bremo Power Station VPDES Permit No. VA0004138:
Centralized Source Water Treatment System CER Addendum Revision**

Dear: Ms. Carver:

Enclosed is a revised addendum to the Concept Engineering Report (CER) for the Centralized Source Water Treatment System (CSWTS) that Dominion is planning to utilize to treat wastewaters generated during the ash pond closure project at the Bremo Power Station. Figure 5 of the CER addendum submitted by my February 26, 2016 cover letter has been updated to address DEQ comments as follows:


1. An influent pump has been added to the figure, and all pumps are now shown within containment.
2. A schematic has been included showing the anticipated piping for the influent/effluent manifold, and a supporting graph has been included that depicts tank operational sequencing over time.
3. The arrow showing the approximate limits of spill containment has been relocated to more clearly show the outer limits of containment.
4. The caption "ACCESS" has been expanded to "ACCESS CORRIDOR AROUND SPILL CONTAINMENT", and the associated arrows depict the boundaries of the corridor.
5. Section lines A-A' and B-B' have been removed as there are no associated cross-sectional figures.

Please contact Ken Roller of my staff at (804) 273-3494 or by email at kenneth.roller@dom.com should you have any questions or require additional information about this transmittal.

Ms. Beverly Carver
March 1, 2016
Page 2

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,


Cathy C. Taylor
Director, Electric Environmental Services

cc: Brandon Kiracofe: brandon.kiracofe@deq.virginia.gov
Beverly Carver: beverley.carver@deq.virginia.gov



Concept Engineering Report Addendum
Source Water Treatment System Effluent Tanks

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CONCEPT ENGINEERING REPORT ADDENDUM

CENTRALIZED SOURCE WATER TREATMENT SYSTEM EFFLUENT STORAGE TANKS

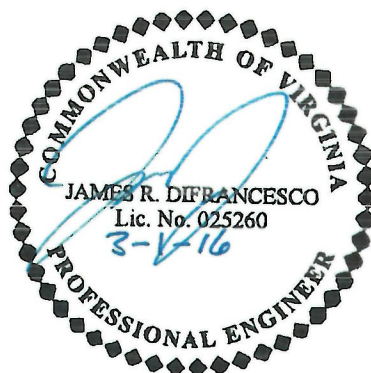
Bremo Power Station



Dominion

Submitted To: Virginia Electric and Power Company
1038 Bremo Road
Bremo Bluff, VA 23022

Submitted By: Golder Associates Inc.
2108 W. Laburnum Avenue
Suite 200
Richmond, VA 23227



February 2016
Revised March 1, 2016

1520-347.300



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Drawing 5 – Effluent Storage Tank Plan (revision 1)

INTRODUCTION

On February 8, 2016, the Virginia Department of Environmental Quality (DEQ) approved the Concept Engineering Report (CER) for the Centralized Source Water Treatment System (CSWTS) that Dominion is planning to utilize to treat wastewaters generated during the ash pond closure project at the Bremo Power Station. Section 4.3 of the approved CER indicates that storage capacity for the effluent from the CSWTS may be added if necessary to effectively manage the treated wastewater. This additional optional effluent storage is shown on CER Drawing 3. Consequently, in approving the CER, DEQ included a requirement for submittal of a CER Addendum that addresses the additional treated wastewater storage should it be added. Additional storage capacity will be added for the effluent from the CSWTS in order to more effectively manage the produced treated wastewater. This Addendum provides the CER for the effluent storage that is envisioned.

The conceptual engineering systems and processes presented herein reflect the planned conceptual approach for the treated wastewater storage, and may not reflect the specific details of the final design system configuration. Prior to system operation, a certification will be provided in writing that, based on inspection of the project, the CSWTS construction was completed in general accordance and intent with this CER.

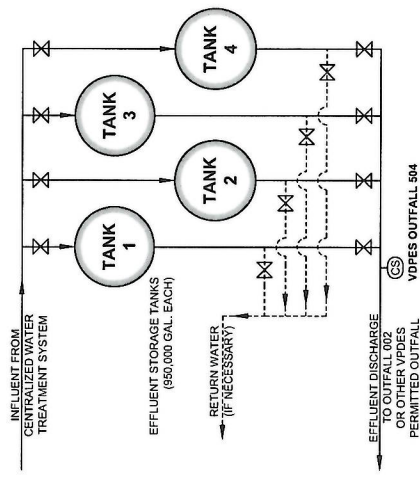
5.0 EFFLUENT STORAGE TANKS

Temporary effluent storage tanks will be used to provide hydraulic retention of treated effluent prior to release. Four 950,000-gallon temporary aboveground storage tanks will be erected to provide a storage capacity of up to 3,800,000 gallons. The storage tanks will be erected on top of the former closed coal yard and set on a compacted aggregate base (Drawing 5). The inside of the tanks will be lined with a geomembrane liner for water-tight containment, and the prepared area will be provided with spill containment.

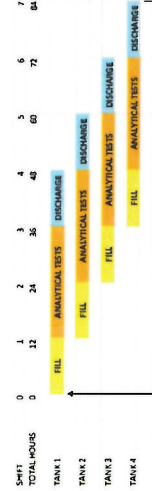
The temporary storage tanks will be used in conjunction with the CSWTS. The tanks will be operated in rotation to hold approximately 12 hours of treated effluent at an operating rate of up to 1,500 gallons per minute. As identified on Drawing 5, internal outfall 504 will be located on the effluent side of the tanks. Outfall 504 will be the metered outfall compliance sampling location. Effluent discharge from the storage tanks will be up to 1,500 gallons per minute.

Process monitoring may be performed on the influent side of the tanks and/or within the tanks at various times to confirm the CSWTS is operating as designed to meet the permitted effluent limits prior to discharge. In the unlikely event that the process monitoring indicates the designed level of treatment is not being achieved, the stored effluent can then be recirculated through the system for additional treatment prior to discharge. This recirculation will be accomplished through a series of valves and piping (Drawing 5).

DRAWING



(CS) - DENOTES COMPLIANCE SAMPLE
 (X) - DENOTES VALVES



NOTE:
1.) BASED ON 1,000 gpm
2.) TANKS MAY BE DISCHARGED SIMULTANEOUSLY. TOTAL DISCHARGE NOT TO EXCEED 1,500 gpm

CONCEPTUAL TANK FILLING & DISCHARGE SEQUENCE

[illegible]

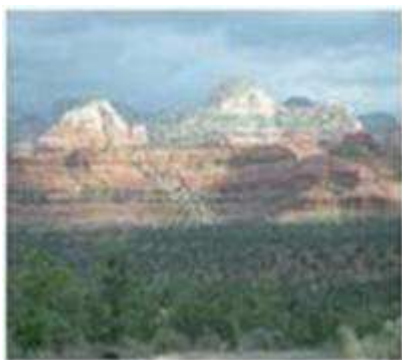
EFFLUENT STORAGE PLAN

Kiracofe, Brandon (DEQ)

From: Sheila Hoffman (Services - 6) [sheila.hoffman@dom.com]
Sent: Wednesday, March 02, 2016 10:04 AM
To: Kiracofe, Brandon (DEQ); 'beverly.carver@deq.virginia.gov'
Cc: Kenneth Roller (Services - 6)
Subject: Bremo CER Addendum Revision March 2016
Attachments: BR CER Addendum Revision March 2016.pdf

Please see attached, thanks.

Sheila Hoffman
Dominion
804-273-3125



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